

R E M A R K S

Claims 1-27 are pending and have been examined. The particular topics in the office action are addressed as follows. Claims 1, 13 and 22 have been amended. New claims 28-33 have been added. Specific issues raised in the office action and by the new claims are addressed below.

Claim 10, 20 and 27 are objected to under 37 CFR 1.75(c) because of informalities. The suggested amendments have been made to correct the informalities. The Examiner's assistance in correcting these informalities is appreciated. The objection is believed moot.

Claim 1-7, 9 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Li et al (US 6,119,162). Claims 1 and 13 have been amended. Claim 22 is also amended, and is discussed here and further below. The rejection is respectfully traversed.

In modifying the previous rejection, the Examiner points to a brief phrase in column 12 of Li where Li discusses a modification involving using more than one active server in a LAN. Specifically, Li states "if there are multiple telephone lines, the server selection agent software may be altered to handle more than one active server, and the state that searches for active servers may determine which or the active servers to use based on the load at each active server. Additionally, if there are multiple active servers, each computer may route network traffic through more than one active server to increase network bandwidth." C12, L29-37. Most of Li's disclosure concerns altering an existing LAN to be able to pick a best server and use that server as a gateway device. FIGs. 2 and 3 and the

associated description concern methods for picking an active server in a LAN. There is no comparable description of using “multiple active servers”, and indeed that goal is not fairly enabled in Li. However, to expedite prosecution, Applicant provides amendments to claims 1, 13, and 22.

Unlike Li, which merely improves the operation of existing private LANs (particularly a home LAN)(C3, L10-35 & 55-62), the present invention is directed toward forming client communities (such as establishing in claim 1; pooling in claim 13, maintaining in claim 22) to leverage available client resources. Li, in contrast, specifically seeks to make an operational private LAN, particularly home LANs that don’t benefit from network administrators and other resources available to business LANs, to avoid difficulties when a server through which Internet access is provided fails. C3, L10-35 & 55-62. Li therefore provides a dynamic server that permits a computer in a LAN to select a new server if a current “server is shut down or disconnected from the network” or “if a new one of computers 12 becomes available that would be a better server”. C5, L28-37.

The amendments to claims 1, 13 and 22 emphasize an important contribution made by the invention that is not contemplated by Li or the art of record that is combined with Li. With the amendments, the clients comprise separate residential or business units. See, e.g., P4, L1-23. When a network of these clients is formed, it is unlike a private LAN (which in Li would be at a residence or business) and resources are leveraged to enhance broadband access. Nothing in the art of record suggests combining resources of separate residence or business units as in claims 1, 13 and 22 as amended.

Regarding claim 2 (and claim 4), Li and the art of record fail to suggest establishing a wireless network from clients that are client or business units. Li, concerns a single LAN in a residence or business. The computers in a single LAN of Li (as pointed out by the Examiner) may be connected by wireless communications, but Li and the art of record fail to suggest using wireless communications to form a network of multiple clients that are residence or business units.

Regarding claims 5, 11 and 12, Li prefers that the computers acting as a server act as a gateway instead of a proxy, but does note that (while more complex) a computer in the LAN may include proxy server software. In that case, each computer on Li's LAN must act as a proxy server to implement a proxy cascade. C8, L30-37. The office action (p5) is incorrect in asserting that there is any proxy outside of Li's LAN (claim 5) or accessed through the Internet (claim 11) or at an ISP (claim 12). One advantage of using an external proxy is to protect the individual client communications (P15, L27 – P16, L4). Li has no such concerns with a LAN that is in a residence.

Claims 8, 13-19 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Vange (US 20020002618 A1). The rejection is respectfully traversed with respect to the amended claims.

As pointed out above, there is a single sentence in Li about using more than one active server in a LAN. Li does not concern forming any community of clients that are multiple residential or business units, and instead provides an automatic scheme to choose an active server in a LAN that lacks the benefit of sophisticated IT support. Vange offers

nothing concerning the operation of a LAN or the selection of an active server. Vange also does not provide any scheme to route traffic through multiple servers in a LAN. As pointed out by the Examiner, the front-end 201 concerns a web site, not a LAN of clients as in Li. No artisan would look to Vange to improve the server selection scheme in Li.

Vange discloses a prioritization scheme, and does not provide any scheme for clients in a LAN to select one or more active servers in the LAN. Vange permits entities outside of the last mile provider system (completely unrelated to Li's private household LAN) to have control over the priority of packets within the last mile system. [0018]. A front end server is presented as an interface to the last-mile communication system, and this server conducts prioritization and buffering to reorder requests before transmitting them over the internet or to reorder incoming traffic from the internet to the last-mile. [0020]. Vange's system is concerned with e-commerce and providing high quality service for particular types of communications that most benefit from quality of service guarantees. [0008]-[0010]. Vange basically discloses a scheduling server that acts as an interface between an internet service provider and the internet connection of the internet service provider. Li, in contrast, is a household LAN that has automatic server selection software. C3, L55-62. In levels of sophistication, hardware, software, etc., Li and Vange are completely unrelated. Moreover, Vange says nothing about selecting one or more active servers in a LAN. Selecting an active server in a LAN is the sole concern of Li.

Regarding claim 15, the Examiner points to Li, but there is no outside proxy server in Li. Li only contemplates using one of the servers on the LAN as a proxy, and in that case all of the servers must act as a proxy. C8, L30-37.

Regarding claim 22, with the amendment, the clients comprise separate residential or business units. See, e.g., P4, L1-23. When a network of these clients is formed, it is unlike a private LAN (which in Li would be at a residence) and resources are leveraged to enhance broadband access. Nothing in the art of record suggest combining resources of separate residence or business units as in claim 22 as amended.

The examiner relies upon Vange as modifying Li to establish clients having gateway devices in a client community. As discussed above, no artisan would look to Vange to modifies Li's LAN server selection. The front end servers of Vange do prioritize communications, but do not act to provide any method to select an active server, which is the sole concern of Li.

The separate rejections of claims 10, 20 and 27 rely upon the addition of Prokop (US 6,870,848). The rejections are respectfully traversed.

As has been discussed, and as Li disclosed in column 3, lines 55 et seq., Li is concerned with improving operations of a simple household LAN lacking in IT support. Li's entire disclosure concerns selecting an active server in a household LAN. Prokop, on the other hand is directed toward a telephone network, which is the antithesis of a private household LAN. Moreover, with respect to claims 10 and 20, Li specifically discusses using proxy server software, but limits it to requiring each an every server in the household LAN to

conduct proxy services. Call sessions, CPC systems, etc. pointed to the examiner have absolutely no commonality of purpose, hardware, sophistication, or operation with Li, and Li is not concerned with a capability to provide “a relatively small number of telephone numbers”. Prokop offers nothing to suggest modifying the proxy services of Li.

New claims 28-33 have been added and are not disclosed or suggested by the art of record. Claims 29, 31 and 33 define the clients as each being a separate local area network. In the invention of these claims, the resources of separate LANs are pooled and shared in accordance with the operations of the associated independent claims. Nothing in the art suggests forming a community of separate LANs and leveraging the resources as in these claims.

New claims 28, 30 and 32 require encryption of communications of clients to protect the communications from other clients. This addresses a concern that can arise when sharing the resources of multiple residential or business units. Li’s private, individual LAN has no reasons to consider or offer such protections because Li is only concerned with improving the operation of an individual, household LAN.

For all of the above reasons, applicant requests reconsideration and allowance of the application. The separate patentability of dependent claims not discussed is maintained. Should the examiner believe that outstanding issues exist and that a telephone conference would aid prosecution, the examiner is invited to contact the undersigned attorney at the below-listed number.

Respectfully submitted,

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